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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,738

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Somei Kawasaki

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2877

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EXAMINER

KOVALICK, VINCENT E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

11/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,738	Applicant(s) KAWASAKI ET AL.	
	Examiner VINCE E. KOVALICK	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29,32 and 37 is/are rejected.
- 7) ☒ Claim(s) 30-31 and 33-36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/22/08 & 4/4/08</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment, dated August 21, 2008, in response to USPTO Office Action dated February 21, 2008

The cancellation of claims 1-28, and the amendments to claims 29 and 37 have been noted and entered in the record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 29, 32 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eschbach (USP 6,486,860) taken with Suzuki (USP 4,858,022) in view of Katoh et al. (Pub. No. 2003/0058228).

Relative to claims 29 and 37, Eschbach **teaches** a Display Unit with an LED Matrix (col.1, lines 43-67 and col. 2, lines 1-51); Eschbach further **teaches** a drive circuit, comprising: a plurality of current signal generation circuits for outputting a current signal to each of a plurality of display units (col. 4, lines 26-34);

Eschbach **does not teach** a current signal output line to which outputs of said plurality of current signal generation circuits are commonly connected; a control circuit for controlling each

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of said plurality of current signal generation circuits to be a current signal output state capable of evaluating an output of one of said plurality of current signal generation circuits; a correction value output circuit for evaluating the output of one of said plurality of current signal generation circuits on a basis of the current values output through said current signal output line to output a correction value according to an evaluation result; and a correction circuit for correcting an image signal supplied to said current signal generation circuits by means of the correction value. Suzuki **teaches** a contact-type linear image sensor (col. 2, line 10-52); Suzuki further **teaches** a current signal output line to which outputs of said plurality of current signal generation circuits are commonly connected (Abstract and Fig. 1 item 20).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Eschbach the feature as taught by Suzuki in order to facilitate tying the output lines of the plurality of signal generators to form a single signal output line.

Eschbach taken with Suzuki **does not teach** a control circuit for controlling each of said plurality of current signal generation circuits to be a current signal output state capable of evaluating an output of one of said plurality of current signal generation circuits; a correction value output circuit for evaluating the output of one of said plurality of current signal generation circuits on a basis of the current values output through said current signal output line to output a correction value according to an evaluation result; and a correction circuit for correcting an image signal supplied to said current signal generation circuits by means of the correction value. Katoh et al. **teaches** a Display Device (pgs. 1-3, paras. 0012-0047): Katoh et al. further **teaches** a control circuit for controlling each of said plurality of current signal generation circuits to be a current signal output state capable of evaluating an output of one of said plurality of current signal generation circuits; a correction value output circuit for evaluating the output of one of said plurality of current signal generation circuits on a basis of the current values output through

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said current signal output line to output a correction value according to an evaluation result; and a correction circuit for correcting an image signal supplied to said current signal generation circuits by means of the correction value (pg. 7, para. 0117).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Eschbach taken with Suzuki the feature as taught by Katoh et al. in order to put in place a control circuit to provide the means for evaluating output signal from the plurality of current signal generation circuits to in turn provide for the correction circuit to correct the resultant image signals.

Regarding claim 32, Suzuki further **teaches** said device circuit according to claim 29, further comprising a switch for realizing a state in which said current signal output line is connected to said plurality of current signal generation circuits simultaneously (Fig. 1, items S1, S2 ...Sm).

Allowable Subject Matter

4. Claims 30-31 and 33-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 30, the major difference between the teachings of the prior art of record (Eschbach (USP 6,486,860); Suzuki (USP 4,858,022) and Katoh et al. (Pub. No. 2003/0058228)) and that of the instant invention is that said prior art of record **does not teach** a drive circuit wherein said control circuit supplies a predetermined signal to one of said current signal generation circuits, and supplies a signal different from the predetermined signal to the other current signal generation circuits.

Relative to claim 33, the major difference between the teachings of the said prior art of

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record and that of the instant invention is that said prior art of record **does not teach** a device comprising a plurality of switches for controlling connection relations between said plurality of current signal generation circuits and said current signal output line, said plurality of switches being controlled by a common control signal.

Regarding claim 34, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a device comprising a plurality of switches for severally controlling connection relations between said plurality of current signal generation circuits and said output units, said plurality of switches being controlled by a common control signal.

Relative to claim 35, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a drive circuit wherein a current signal generation circuit includes a circuit for outputting a current signal having a squared value of a value of an input signal, and said correction value output circuit outputs a correction value obtained by calculating a square root of a ratio of an output evaluation value of said said-current signal generation circuit to a reference value.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	5,296,696	Uno
Pub. No.	US2002/0092969	Iodice et al.

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To Respond

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINCE E. KOVALICK whose telephone number is (571)272-7669. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bipin Shalwala/
Supervisory Patent Examiner, Art Unit 2629

/Vincent E Kovalick/
Examiner, Art Unit 2629
November 14, 2008

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